

### Abstract

An automated inspection system and method enables rapid, remote and non-contact inspection of large objects, utilizing non-destructive testing techniques, that does not require continuous manual repositioning of the test equipment. The inspection system includes a remote controlled robotic vehicle including a sensor package capable of non-destructive testing of a structure and a mechanism for locating the sensor package at a plurality of test sights on the structure; a positioning system for determining the location of the robotic vehicle with respect to the structure to be tested; a control system for controlling the movement of the robotic vehicle around the structure to be tested; and an analysis systems for analyzing data generated by the sensor platform.